

#### D. Remarks

The claims are 57-89, with claims 57 being the sole independent claim. Claims 48-56 have been cancelled without prejudice or disclaimer of the subject matter recited therein. New claim 89 has been added. Support for this claim may be found, inter alia, in Fig. 8, which shows an  $^1\text{H}$  NMR spectrum of Ex. Comp. No. 1 (tris(1-phenylisoquinoline  $\text{C}^2$ , N) iridium (III); “ $\text{Ir}(\text{piq})_3$ ”).

A facial configuration metal coordination compound differs from a meridional configuration metal coordination compound in its degree of symmetry. The latter compound has a low degree of symmetry, thus having an increased number of spectral peaks. To the contrary, a facial configuration metal coordination compound has a three-fold symmetry axis, so that the three ligands are magnetically equivalent. As a result, protons located at the same positions with respect to the three ligands are also magnetically equivalent, producing proton NMR spectral peaks of the three ligands in an overlapping manner.

For example, 24 protons in a facial configuration  $\text{Ir}(\text{ppy})_3$  compound are observed as 8  $^1\text{H}$  NMR spectral peaks, which corresponds to 8 species of non-equivalent protons. In the same manner, in Ex. Comp. No. 1 ( $\text{Ir}(\text{piq})_3$ ) of the present application, 30 protons are observed as 10  $^1\text{H}$  NMR spectral peaks corresponding to 10 species of non-equivalent protons, as shown in Fig. 8.<sup>1</sup>

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<sup>1/</sup> While there are 11 peaks in the  $^1\text{H}$  NMR spectrum in Fig. 8, the one with the maximum value of about 7.3 ppm represents two detected chloroform protons. Thus, the number of  $^1\text{H}$  NMR spectral peaks, other than the ones accounting for chloroform, is 10.

To further demonstrate this point, Applicants direct the Examiner's attention to two articles, Arnold B. Tamayo et al., "Synthesis and Characterization of Facial and Meridional Tris-cyclometallated Iridium (III) Complexes," 125 J. Am. Chem. Soc. 7377-87 (2003) (Tamayo)<sup>2</sup> and Mirco G. Colombo et al., "Facial Tris Cyclometallated Rh<sup>3+</sup> and Ir<sup>3+</sup> Complexes: Their Synthesis, Structure, and Optical Spectroscopic Properties," 33 Inorg. Chem. 545-50 (1994) (Colombo). Tamayo recites graphical formulas of both facial and meridional configuration metal coordination compounds, and its Fig. 2 provides examples of their NMR spectra. Colombo teaches, particularly at page 549, that a facial configuration metal coordination compound (e.g., Ir(ppy)<sub>3</sub>) has 8 NMR spectral peaks, and to the contrary, a meridional configuration metal coordination compound has 24 (i.e., 8x3) NMR peaks, because the protons on the ligands are not magnetically equivalent. This corresponds to the teachings in Fig. 2 of Tamayo.

Therefore, Applicants respectfully submit that new claim 89 is fully supported by the originally-filed specification and that the present amendment adds no new matter to the application. Reconsideration of the present claims is expressly requested.

The specification is objected to under 35 U.S.C. § 132 for allegedly containing new matter.

In response, Applicants have now amended the specification as suggested by the Examiner. Accordingly, withdrawal of this objection is respectfully requested.

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<sup>2/</sup> Applicants note that Tamayo is not prior art.

Claims 48-88 stand rejected under 35 U.S.C. § 103(a) as being allegedly obvious from U.S. Patent Application Publication No. 2003/0072964 A1 (Kwong).

Applicants respectfully submit that Kwong is not prior art. Specifically, the 102(e) date of Kwong is October 17, 2001. The subject application is continuation of International Application No. PCT/JP01/10487, filed November 30, 2001, which claims priority from Japanese Patent Application Nos. 2000-364650; 2001-064205; and 2001-128928. These Japanese priority applications were filed on November 30, 2000; March 8, 2001 and April 26, 2001, respectively, which is prior to the October 17, 2001 102(e) date of Kwong. To perfect foreign priority under 37 C.F.R. § 1.55, Applicants are currently preparing and will shortly submit sworn translations of the above-mentioned Japanese priority applications, as well as the translation of the parent application.<sup>3</sup> Accordingly, the above rejections over Kwong should be withdrawn.

Claims 48-56 stand rejected under 35 U.S.C. § 103(a) as being allegedly obvious from U.S. Patent Application Publication No. 2001/0019782 A1 (Igarashi).

Without acquiescence, and solely to expedite prosecution, Applicants have cancelled claims 48-56. Therefore, the rejection is moot and should be withdrawn.

Claims 57-88 stand rejected under 35 U.S.C. § 103(a) as being allegedly obvious from U.S. Patent Application Publication No. 2001/0019782 A1 (Igarashi). The grounds of rejection are respectfully traversed.

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<sup>3/</sup> If the translations are not in the IFW system when the Examiner reviews this case, the Examiner is requested to contact the undersigned regarding this issue prior to issuing an action on the merits.

The Examiner's rejection of claims 57-88 is premised on Igarashi's compounds (1-56) and (1-60). The Examiner has alleged that one of skill in the art would be capable of synthesizing the presently claimed compounds based on the above-mentioned structures in Igarashi and expect to obtain similar results. Applicants respectfully disagree with this line of reasoning and submit that the Examiner did not establish a case of prima facie obviousness.

While the Examiner discussed the issue of expectation of success, the Examiner has not shown any suggestion or motivation for making the alleged modifications. Expectation of success alone is not sufficient to establish a case of prima facie obviousness. Before a skilled artisan can evaluate a composition as a success or a failure, the artisan must know or be aware of the composition that is being evaluated. Therefore, absent a clear indication of motivation or suggestion to modify the structure in Igarashi to obtain the presently claimed composition, a person skilled in the art could not have been able to make a determination as to its effectiveness.

The Examiner's line of reasoning is based on hindsight; i.e., in view of the disclosure in the current specification and claims, the Examiner concluded that one skilled in the art would expect the presently claimed invention to work as Igarashi. This type of analysis is not permitted. Absent a showing of motivation or suggestion to replace the third ligand in, for example, compound (1-56) in Igarashi with the third identical ligand, prima facie obviousness has not been established. Applicants note that such a modification is not merely a minor variation in structure. It involves at least replacing a heterocyclic group with a fused heterocyclic ring system.

The Examiner will note that Igarashi fails to teach that any one of the seventy compounds exemplified on pages 10 through 17 produces superior results over any other compound. In fact, Applicants submit that Igarashi implies that all of these compounds produce similar results.

Igarashi's compound (1-1), which is presented as being equivalent to compounds (1-56) and (1-60), however, is the compound analyzed in the instant Comparative Example 1. The data presented in the specification shows that the presence of three identical ligands having an isoquinolyl group leads to substantially superior results. Thus, clearly, there is no recognition in Igarashi that a modification of compound (1-60) or (1-56) as alleged by the Examiner can or would lead to superior results as presently claimed or that this modification should be made for any other reason. The fact that a skilled artisan could have experimented with compound (1-60) or (1-56) and may have possibly arrived at the presently claimed compounds simply because they were, assumed, arguendo, possible to make within the realm of chemical synthesis. Clearly, the presently claimed invention is patentable over Igarashi.


Furthermore, with respect to new claim 89, a facial configuration metal coordination compounds provides a higher luminescence quantum efficiency than a meridional configuration compound, as can be seen in Tamayo. Igarashi is silent in this respect. Applicants therefore respectfully submit that Igarashi fails to disclose or suggest the compounds as presently claimed.

Wherefore, Applicants respectfully request that the outstanding rejections be withdrawn and that the present case be passed to issue. Should the Examiner believe that

not all issues have been resolved, the undersigned request an opportunity to conduct an interview, either in person or over the telephone, to resolve any outstanding issues in an expeditious manner prior to issuance of another action on the merits.

Applicants' undersigned attorney may be reached in our New York office by telephone at (212) 218-2100. All correspondence should continue to be directed to our address given below.

Respectfully submitted,

  
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Jason M. Okun  
Attorney for Applicants  
Registration No. 48,512

FITZPATRICK, CELLA, HARPER & SCINTO  
30 Rockefeller Plaza  
New York, New York 10112-3801  
Facsimile: (212) 218-2200

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